

# The Right Way Is Right

by Mary James

**J**oe Kuonen, president of Comfort Diagnostics and Solutions in Sherwood, Arkansas, didn't want to be a contractor anymore. He wanted to be an energy guru. That's why he abandoned his career as a remodeling contractor who specialized in the preservation of historic structures and started conducting energy ratings in 1984 for Energy Rated Homes of Arkansas. During the next decade, he mastered blower doors and house leakage, pressure pans and duct leakage. Not too many people wanted energy ratings, but customers called wanting to know what to do to get their homes to perform. Kuonen would come to their homes and conduct an energy rating. He often found major problems—problems that needed taking care of right away. The customers would look at him with big eyes, asking, “Who should we call?” Who indeed?

To answer that question, Kuonen helped organize contractor trainings. The response was not phenomenal. A few HVAC contractors were persuaded to invest in blower doors and sell duct sealing services, but wouldn't commit to delivering any reductions in energy use. “Get some balls here,” Kuonen used to think. “You got a blower door, you got a house, guarantee me some results.” Frustrated, Kuonen left his job with Energy Rated Homes of Arkansas in 1994 and teamed up with partners Royce Lewis and Karen Walker to form Comfort Diagnostics and Solutions. “We didn't have a perfect business plan, but we knew there was demand for our services and that we had the tools and ability to help lots of people,” remembers Kuonen.

They got that right. Now in its ninth year of operation, Comfort Diagnostics and Solutions has thirty employees and last year had gross revenues of \$2 million. Unlike many new businesses, the company struggled with too much demand for its services in its early years. In its second year the company grew by 300%. Logistics problems led Kuonen and



Royce Lewis (left) and Joe Kuonen have hosted the live call-in show “House Calls” for 420 consecutive Saturdays to build consumer demand and confidence in diagnostics and performance contracting.

his partners to trim growth back each year until they reached the more manageable pace of 10% per year expansion.

Today, in addition to diagnostic services, Comfort Diagnostics and Solutions offers complete home performance repair and retrofitting, as well as packages for building performance in new construction. “I started out trying to save energy,” quips Kuonen. “Now I'm trying to save lives and houses. Some of the nightmare houses I see—with mold and moisture problems—are just incredible.” Whether a customer calls with a health-threatening problem or a routine comfort complaint, Kuonen's understanding of how a home works as a system of interconnected parts gives him the tools he needs to respond to that customer's concerns (see “Way Beyond Satisfying”). “I let the building science and diagnostics prove to the customer what is wrong and what actually needs to be changed to make the house work,” says Kuonen.

Kuonen has had plenty of experience fixing up homes that had already been fixed up by a series of contractors who were not familiar with

building science principles. In one house inspected by Kuonen's partner, Royce Lewis, the customer had fought a mold and condensation problem for 12 years with no success. Her ceiling registers on the second floor were black with mold and were dripping water into dishpans that she had placed on the beds. By the time she called in Comfort Diagnostics and Solutions, she had already spent about \$12,000 trying to solve her moisture problems. “She had bought the wrong-sized HVAC equipment, the wrong insulation in the wrong place, the wrong power roof ventilators, air purifiers, and dehumidifiers, but the pesky problem persisted,” says Kuonen. “Our testing indicated that she needed a vapor barrier in the crawl-space, new ductwork under the house, different equipment than what she had bought four months earlier, and extensive air sealing of the house and upstairs ducts.” Kuonen's estimate for the work came to roughly \$12,000. Having already spent that sum in useless solutions, Lord balked. “Can you guarantee me in writing,” she said, “that if I have you do this work, the problem will

go away?” “Well, since we were sure of our science and diagnostics, we did, she did, it did, and she became one of our strongest references ever,” says Kuonen.

All the services needed to fix even these nightmare homes have been brought in-house, although it wasn't always that way. During the first year, the company subbed out insulation installation and HVAC servicing. But the scheduling difficulties and the very thin profit margin associated with subcontracting part of their jobs soon convinced Kuonen and his partners to hire and train their own insulation and HVAC technicians. “When we were sub-

contracting,” says Kuonen, “we'd be out on a job site training their technicians. Now we train our employees to do the work our way—the right way.”

Comfort Diagnostics employs a two-step sales process. On the first visit, Kuonen conducts an inspection for a fee of \$96—a fee that Kuonen characterizes as a low-price loss leader. The inspection includes a discussion of any comfort problems or health concerns, a blower door test for total air leakage and problem identification, temperature and air flow measurements at all grille locations, a duct leakage test, and various combustion safety tests. If the house is on a

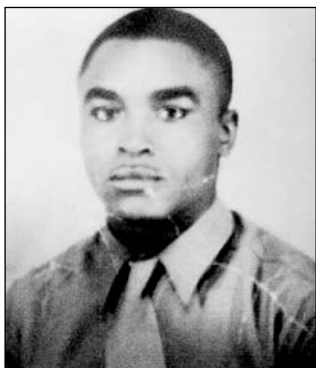
crawlspace—as is the case for 50%–60% of the housing stock—the crawlspace gets inspected for moisture control and bulk water issues. Almost all of these homes do have moisture problems.

“Basically, if it's a crawlspace, it's broken,” says Kuonen. Kuonen collects all the data on the first visit and returns to the office to run a load calculation using the WrightSuite software program and to create a comprehensive report and proposal developed exclusively by Comfort Diagnostics and Solutions. Then he explains his findings to the homeowner on the second visit and—ideally—closes the sale. His closing rate is 50%–70%.

## Way Beyond Satisfying

Earl Williams fought in the 761st tank battalion, which was personally requested for service by General George S. Patton. The first all-black group of soldiers to see action in World War II, they liberated more than 100 cities and four airports from Nazi control. In 1999, after listening to our radio show, *House Calls with Joe and Royce*, “Mr. Earl” suggested to his boss that he call Comfort Diagnostics and Solutions to solve his comfort problems and high bills. Mr. Earl was so impressed with the quality of our work and with our attention to detail that he decided to have his own home inspected to solve his own problems with moldy smells, cold winter air swirling around his ankles, and a “rattlin sound” in his lungs. After a thorough evaluation and consultation, Mr. Earl decided to have us replace his 15-year-old HVAC equipment and 38-year-old ducts, install insulation, air seal the house, and implement a Performance Crawlspace treatment.

The Performance Crawlspace treatment involves thoroughly sealing the ground and walls of the crawlspace with either 6-mil polyethylene or a more expensive, commercially available 20-mil, 6-ply poly product, called Cleanspace. We also plug the foundation vents with foam board and install an automatic dehumidifier to ensure that humidity levels don't exceed 60%. Upstairs, we install a digital Radio Shack thermo-hygrometer “weather station,” so the homeowner can monitor the humidity



(left) This is Earl Williams in 1944, when he was First Lieutenant Williams. (right) Kuonen and Mr. Earl discuss building science and his home performance makeover at his Little Rock home.



and temperature of the crawlspace from inside the house. This gadget has a long-term high-and-low memory as well as an alarm that you can set to go off at any desired level. It's a great way to keep the customer involved in the long-term management of the treatment. When drainage problems exist, the Performance treatment also includes a sump pump or two. This approach enables us to reduce humidity levels from 85%–95% down to less than 60% in about one week's time—sometimes less. The smells go away, the ducts stop dripping, and the house begins to dry out.

Mr. Earl's house responded well to our approach, even though his ductwork was among the moldiest and filthiest we have ever removed. Since the treatment, Mr. Earl reports that his ankles are now warm

and that the musty smells have gone away. His bills have decreased by more than 80%—down from \$258 per month to \$48 per month. Perhaps best of all, even though Mr. Earl still smokes, his doctor reports that the rattlin' in his lungs has gone away. To me, the greatest rewards of my career in home performance contracting are bringing sorely needed benefits to deserving people and helping to improve the quality of their lives in a comprehensive way. These benefits go far beyond what can be measured in dollars and cents. It's a great blessing to be able to do this every day and make a living for my family in the process. I LOVE MY JOB!

—Joe Kuonen

Kuonen and one other employee constitute the auditor/sales force for retrofits at the moment; two other employees are in training. One other salesperson handles all new-construction proposals and scheduling. "The biggest bottleneck in expanding is finding the right people to do inspections and sales," says Kuonen. "They're not standing on street corners with signs saying, 'Will do building science for food.'" To fill those shoes, the right person has to be able to think analytically, understand building science, be honest, build customer confidence, and be able to close a deal. "Learning how to manage that department has been a school of hard knocks," Kuonen says. Sales employees now start out on a salaried basis but switch to a 100% commission structure when they are ready. Facilitators act as assistants to the auditors during the inspection process by completing such chores as taking measurements, filling out forms, and preparing report information. Facilitators can grow into sales, but that's not a guaranteed stepup.

Kuonen finds hiring production staff to be a much more routine process. "I used to think they had to understand building science," he says. "Now I think that what is most important is that they are problem solvers and are open minded to learning how I need the work to be done." New hires work closely with skilled crew chiefs to learn the details of their job requirements. "They are usually well assimilated into the crew within a few days," Kuonen says.

Comfort Diagnostics and Solutions treats 300-500 homes per year and spends its only advertising money on airtime for a radio show—a rare trick. Customers find the company through the weekly radio show that Kuonen and his partner, Lewis, host every Saturday morning. Since 1996 the two of them have gotten up every Saturday and chatted live on the radio about home performance. "We have fun, we get serious, and we make it interesting,"

says Kuonen, who describes the two of them as the Click and Clack of building performance. It's a call-in show. To get the conversation rolling, Kuonen and Lewis might talk about seasonal issues, why duct leakage under



Comfort Diagnostics and Solutions measures air flow and temperature at all registers and calculates room thermal loads to formulate comfort improvement strategies.

a house can make an upstairs grille moldy, or the amazingly disastrous house they inspected that week. Then the calls start coming in. "No one can ask us a question that we can't answer or at least explain the issues involved," says Kuonen. "It's clear to listeners that we know what we are talking about." Most of their first-time customers have either heard the radio show more than once or have a friend or relative who listens regularly. The regularity of their show exemplifies Kuonen's approach to a successful advertising campaign: Be consistent and stay on message. The message that Kuonen repeatedly emphasizes to his listeners is that prescription without diagnosis is malpractice, and diagnosis without testing is just guessing.

Asked whether his company ever got any support from efficiency programs during the development of his business, Kuonen replies, "We don't need no stinking programs." In short, no. More seriously he says, "The only program we need is our radio program. It would be nice, I guess, to get support from efficiency programs, but it would

also create more competition." He points to one program that has done what he considers to be a very good job of creating not just competition, but also customer demand: the Home Performance with Energy Star program sprouting up around the country and especially in New York. "It's encouraging to go to another planet like that and see how the market has developed," says Kuonen. What he sees is that hard work and much cash has stimulated a great deal of customer interest and contractor involvement in New York State. But Arkansas is not New York. "We don't have those kinds of pockets here."

Instead of easy access to the range of financing options that New York residents have, the customers of Comfort Diagnostics and Solutions generally have to arrange for their own financing, using credit cards, credit unions, or home equity loans. Some may qualify for a loan through Energy Finance Solutions, a national loan program administered by Wisconsin. But the rates offered through this program tend to be higher than home equity loan rates. Others may qualify for financing through an equipment dealer, when that is appropriate. "We don't have enough options," says Kuonen.

Without programmatic support, his company has pinned its growth on educating consumers about the difference between standard contracting and quality home performance contracting. "We're in the tenth year of a pilot project to see if the marketplace will reward building performance, once people know about it," Kuonen says. "Consumers love it!" And he adds, "Can building performance contracting stand on its own merits and survive in the marketplace with no perks for contractor or consumer? Yes, it can—if consumers place value on the benefits and contractors honestly deliver them."

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# A Whirlwind Startup

by Mary James

Starting a new business isn't usually a cakewalk, but some needs just cry out to be filled. In 2002 Mike Woodson was a telecommunications engineer in Ridgeland, Mississippi, who was facing a probable layoff. He was having lunch with a friend who said he knew someone who was having trouble finding anyone to install a geothermal heat pump, and that sounded like a business opportunity to him. "My response was, I thought you need a volcano for that," says Woodson. But he started searching the Internet for information on geothermal heat pumps and expanded from there to topics related to energy efficiency. He found an Energy Star Web site that quoted a study revealing that 40% of conditioned air was leaking out of ductwork. "That caught my interest," Woodson says. He put down his mouse, went up into his attic, and found gaping holes in his ductwork. He called a friend, asked if he could crawl around in his attic and, sure enough, he found holes in his ductwork. His lunching buddy, Jerold Sit, had holes in his ductwork, too. A business plan was born.

That business plan was eventually torn up and rewritten, but the need had been identified. After attending an Affordable Comfort conference, reading reams of home performance material, picking the brains of many seminar leaders, and mastering the intricacies of *Manual J* and *Manual D*, Woodson and Sit started Practically Free Energy last March. They sealed their first ducts in May, branched out into more general home performance diagnostics and contracting shortly thereafter, and haven't looked back. By July, the business was in the black. A little more than one year later, Practically Free Energy have all the jobs they can handle for the next six weeks. They own a blower door, a Duct Blaster, an infrared camera, and "lots of other cool stuff that no one else around here has." They have a floating crew of from two to six workers, depending on their needs. And they did it all while spending almost nothing on advertising.



Mike Woodson (left) and his partner at Practically Free Energy, Jerold Sit, have just completed air sealing a house and are giving their customer something to remember them by.

What's their secret? Nothing succeeds in business like answering pent-up demand, but a critical business strategy has been their imitation of a Joe Kuonen trademark: harnessing the power of talk radio (see "The Right Way Is Right," p. 40). They bought some advertising airtime on a local radio station and talked their way into a monthly show with one of the station's regular hosts. Most of the questions they encounter are variations on a couple of themes: "I've got a room that's too hot" or "I've got mold." If they get an issue that they can't resolve on air, they'll explain they need to come see the house. "It can be like giving a haircut over the phone," says Woodson. When discussing building science principles on air, Woodson sticks to easy-to-understand metaphors. "We don't talk about CFM and convection," he says. "We talk about filling up a house with basketballs. We talk about heat transfer in terms of hair dryers and frying pans."

Word of mouth and the talk show have generated enough calls to keep Practically Free Energy hopping. They charge \$75 for an initial inspection that can last anywhere from 90 minutes to five hours. "The fee covers gas money," says Woodson. Sometimes the home's problems are obvious enough that Woodson can identify them without conducting any tests. "I went into one house and the duct tape on the ducts was flapping in the breeze." But he always conducts diagnostic tests anyway, using his blower door, Duct Blaster, and a smoke pencil. "We

always do diagnostics, because otherwise you don't know what you might miss." Before they leave a house, they will generate a report with a detailed list of recommendations, prioritized according to the customer's concerns. Woodson is not an advocate of high-pressure sales techniques. "I will ask a customer if they want a quote on how much it will cost to fix their problems," he says. "Most of the people who are going to do business with me will tell me on the spot." His closing rate has ranged from 50% to 80%.

Woodson and Sit subcontract out the more technical HVAC work to a couple of companies, but that will change. Sit is studying to get his journeyman license as an air conditioning technician. They have also signed up to participate in John Proctor's CheckMe program (see "Conditioning the A/C Technician," *HE* May/June '02, p. 22).

Asked whether he enjoys his new profession, Woodson answers lightly, "It's a lot better not being at a desk. This morning I was laying on my face in insulation." Besides, how else would he get to see the strange tracks that previous contractors have left behind? "We pulled a bag of onion rings out of someone's ductwork that was from eight years ago." More seriously, Woodson gets fulfillment from filling customer's unmet needs. "It's fun and I'm helping people." That's a powerful combination.



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